

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1.-14. (cancelled)

15. **(currently amended)** A recombinant organism comprising a ~~PCR-mediated gene replacement~~ recombinant vector comprising:

- (a) a λ *exo* and a λ *bet* nucleotide sequences encoding bacteriophage λ Red recombinase;
- (b) a λ *gam* nucleotide sequence encoding bacteriophage anti-RecBCD;
- (c) a *P_{tac}* promoter sequence operably linked to the nucleotide sequence of (a) and (b); and
- (d) a nucleotide sequence encoding LacI operably linked to its native promoter; and
- (e) at least one origin of replication sequence which confers low copy number on the vector,

wherein the recombinant organism is a bacterial species which is pathogenic species to humans, animals, or plants, and whereby the products of the recombinant vector facilitate replacement of genomic nucleic acid in the recombinant organism with substrate nucleic acid.

16.-20. (cancelled)

21. **(currently amended)** The pathogenic species of claim 15 which is a strain of pathogenic *Escherichia coli* which is pathogenic to humans, animals, or plants.

22. **(previously presented)** The pathogenic species of claim 21 which is enterohemorrhagic *E. coli* (EHEC) or enteropathogenic *E. coli* (EPEC).

23. **(previously presented)** The pathogenic species of claim 15 which is of the genus *Pseudomonas*.

24. **(previously presented)** The pathogenic species of claim 23, which is *Pseudomonas aeruginosa*.

25. **(previously presented)** The pathogenic species of claim 15 which is of the genus *Mycobacterium*.

26. **(previously presented)** The pathogenic species of claim 25, which is *Mycobacterium tuberculosis*.

27. – 43. **(cancelled)**

44. **(previously presented)** The vector of claim 15, wherein the at least one origin of replication sequence is temperature sensitive.

45. **(currently amended)** A recombinant organism comprising a ~~PCR-mediated gene replacement~~ recombinant vector comprising:

- (a) a λ *exo* and a λ *bet* nucleotide sequences encoding bacteriophage λ Red recombinase;
- (b) a λ *gam* nucleotide sequence encoding bacteriophage anti-RecBCD;
- (c) a *P_{tac}* promoter sequence operably linked to the nucleotide sequence of (a) and (b); and
- (d) a nucleotide sequence encoding LacI operably linked to its native promoter; and
- (e) at least one origin of replication sequence which confers low copy number on the vector,

wherein the recombinant organism is enterohemorrhagic *E. coli* (EHEC) or enteropathogenic *E. coli* (EPEC), and whereby the products of the recombinant vector facilitate replacement of genomic nucleic acid in the recombinant organism with substrate nucleic acid.

46. **(currently amended)** A recombinant organism comprising a ~~PCR-mediated gene replacement~~ recombinant vector comprising:

- (a) a λ *exo* and a λ *bet* nucleotide sequences encoding bacteriophage λ Red recombinase;
- (b) a λ *gam* nucleotide sequence encoding bacteriophage anti-RecBCD;
- (c) a *Ptac* promoter sequence operably linked to the nucleotide sequence of (a) and (b); and
- (d) a nucleotide sequence encoding LacI operably linked to its native promoter; and
- (e) at least one origin of replication sequence which confers low copy number on the vector,

wherein the recombinant organism is *Pseudomonas aeruginosa*, and whereby the products of the recombinant vector facilitate replacement of genomic nucleic acid in the recombinant organism with substrate nucleic acid.

47. **(currently amended)** A recombinant organism comprising a ~~PCR-mediated gene replacement~~ recombinant vector comprising:

- (a) a λ *exo* and a λ *bet* nucleotide sequences encoding bacteriophage λ Red recombinase;
- (b) a λ *gam* nucleotide sequence encoding bacteriophage anti-RecBCD;
- (c) a *Ptac* promoter sequence operably linked to the nucleotide sequence of (a) and (b); and
- (d) a nucleotide sequence encoding LacI operably linked to its native promoter; and
- (e) at least one origin of replication sequence which confers low copy number on the vector,

wherein the recombinant organism is *Mycobacterium tuberculosis*, and whereby the products of the recombinant vector facilitate replacement of genomic nucleic acid in the recombinant organism with substrate nucleic acid.

48. **(new)** A recombinant organism comprising a recombinant vector comprising:

- (a) a λ *exo* and a λ *bet* nucleotide sequences encoding bacteriophage λ Red recombinase;
- (b) a λ *gam* nucleotide sequence encoding bacteriophage anti-RecBCD;
- (c) a *Ptac* promoter sequence operably linked to the nucleotide sequence of (a) and (b); and

- (d) a nucleotide sequence encoding LacI operably linked to its native promoter; and
- (e) at least one origin of replication sequence which confers low copy number on the vector,

wherein the recombinant organism is enterohemorrhagic *E. coli* (EHEC) or enteropathogenic *E. coli* (EPEC), and wherein the recombinant vector is pKM200, pKM201, or pKM208.

49. (new) A recombinant organism comprising a recombinant vector comprising:

- (a) a λ *exo* and a λ *bet* nucleotide sequences encoding bacteriophage λ Red recombinase;
- (b) a λ *gam* nucleotide sequence encoding bacteriophage anti-RecBCD;
- (c) a *Ptac* promoter sequence operably linked to the nucleotide sequence of (a) and (b); and
- (d) a nucleotide sequence encoding LacI operably linked to its native promoter; and
- (e) at least one origin of replication sequence which confers low copy number on the vector,

wherein the recombinant organism is *Pseudomonas aeruginosa*, and wherein the recombinant vector is pKM200, pKM201, or pKM208.

50. (new) A recombinant organism comprising a recombinant vector comprising:

- (a) a λ *exo* and a λ *bet* nucleotide sequences encoding bacteriophage λ Red recombinase;
- (b) a λ *gam* nucleotide sequence encoding bacteriophage anti-RecBCD;
- (c) a *Ptac* promoter sequence operably linked to the nucleotide sequence of (a) and (b); and
- (d) a nucleotide sequence encoding LacI operably linked to its native promoter; and
- (e) at least one origin of replication sequence which confers low copy number on the vector,

wherein the recombinant organism is *Mycobacterium tuberculosis*, and wherein the recombinant vector is pKM200, pKM201, or pKM208.